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ABSTRACT

A current limiter circuit for limiting current in an electrical circuit element such as the magneto-resistive portion of a read head forming a portion of a hard disk drive and including: a first circuit connected to one end of the circuit element for applying a bias current of a desired value to the circuit element in response to the value to an input signal; a second circuit connected to the other end of the circuit element for setting the amplitude of the voltage signal generated across the circuit element in response to the bias current; and a third electrical circuit connected to both the first and second circuits for limiting the value of bias current to a predetermined level for an abnormal event such as a current surge, a short circuit, or any other type of undesired current operating condition.